Buzzwords ...

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MR N WALLINGFORD
55 WATLING STREET
TAURANGA

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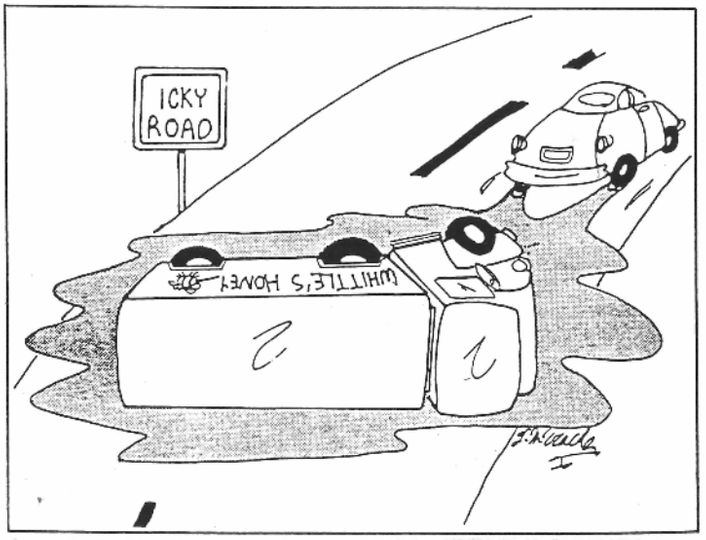
..... the newsletter for National Beekeepers' Association members

In this issue ...

Buzzwords No 38 February 1992



FROM THE PRESIDENT

As this is the first issue of *Buzzwords* for 1992, let me take this opportunity to wish you all a prosperous new year. And prosperous it may turn out to be, for although there are some parts of the country with disappointing honey crops so far, on the whole reports are very encouraging. It looks as though this may be a good year for light honey.

Whether the good crop will translate into good prices is another matter, however. If beekeepers are going to get the most out of this season they must refrain from letting their honey go too cheaply. I would suggest all producers aim at $2 per kg for bulk honey, even if they have to hold on to stocks a bit longer. Remember, honey is a product that keeps well provided it is stored correctly.

Your executive is encouraged by the initiatives taken by our Honey Marketing and Promotion Committee. We are therefore sending out an appeal for support funds from all beekeepers with more than 400 hives. We believe it is essential to further extend the momentum which Bill Floyd and his group has begun. Already one of our larger packers is offering $2.50 per kg for manuka honey in bulk. If we continue to get behind Bill's marketing programme we all must stand to benefit from it.

Dudley Ward, president

EFB NOT EFB

The rumour mill has certainly been working overtime since the EFB emergency ended on December 5. On that day, Dr. Peter O'Hara, MAF's Chief Veterinary Officer, announced that New Zealand was free of EFB. He reached that conclusion based on the 4000 hives inspected during the disease survey, the fact that all samples taken for

microscopic analysis proved negative, and the confirmation from Australia that cultures from the original suspect sample did not produce any colonies of *Melissococcus pluton*.

So what was it? According to Dr. Michael Hornitzky, the bee pathologist with the New South Wales Department of Agriculture and Fisheries, the organism contained in the original sample turned out to be *Streptococcus faecium*, a bacteria which under the microscope closely resembles *M. pluton*, but which is found only rarely in association with honey bees. *S. faecium* is related to *S. faecalis*, a bacteria which is sometimes found in honey bee larvae killed by other means. Dr. Hornitzky speculates that in the hive in question, which for some reason (probably halfmoon disorder) had an 80% larval death rate, *S. faecium*, instead of *S. faecalis*, somehow managed to successfully invade the one cell. In both cases the bacteria are secondary invaders; they are incapable of killing larvae, the way *M. pluton* does.

The diagnosis Dr. Hornitzky reached took some highly skilled effort and a great deal of time. He was chosen for the job because his experience with EFB diagnosis is far greater than anything we have currently in this country. MAF asked Dr. Hornitzky to come to New Zealand, but he decided to remain in Australia and work on the problem, rather than fly over here. It made more sense for him to stay put and use the facilities and equipment that he knew.

Dr. Hornitzky was unable to determine the exact species in the suspect sample for some time because he had to wait until a culture of the organism grew out. This quite often happens with suspect samples of disease, no matter what the animal or plant. The original smear does not contain sufficient material to do a thorough examination, and the pathologist has to use all the skill at his or her disposal to bulk up enough material to make a firm diagnosis. It may not happen that way on television, but it certainly does in real life. We were lucky the time was so short. In cases of Tb in animals, the culture time can be three months!

So why go to all that trouble setting up an emergency headquarters and inspecting all those hives? Why not just wait the several weeks it takes to grow some cultures out. The answer to that question should be obvious, especially in a country whose lifeblood depends on agricultural exports. The New Zealand government has historically taken the decision to act quickly and decisively in these matters, no matter what the cost. The alternative would be to be accused of gross negligence if it didn't act and the disease was latter confirmed. The politicians have also made it clear that they see the government's role in maintaining agricultural security in the same light as the police, exempt from user-pays.

What happened with the EFB emergency in Nelson was quite similar to the foot and mouth scare in Temuka in 1981. In that case, symptoms were diagnosed by the best veterinarians here in New Zealand and then samples were sent to Britain for test. A full-scale alert ensued complete with road blocks, quarantines, and destruction of livestock. It wasn't until a week later, when testing was finally complete, that anyone could be sure we didn't have the disease.

Source of Information: Dr. Michael Hornitzky, Suspect Outbreak of European Foulbrood in New Zealand, NSW Department of Agriculture and Fisheries, December 12, 1991

BRANCH NOTES

The **Auckland** branch will be holding their next meeting on Thursday, February 13 at 7.30 pm at the Anglican Church Hall, corner Great South Road and Coles Crescent, Papakura (opposite the 3 Guys food store). Please note this is a new venue. The meeting will include a question and answer session with MAF's Derek Bettesworth on the recent EFB incident and an EFB identification slide show, with materials kindly donated and projected by Ceracell Apiarists Supplies.

Our apologies to the **Southland** branch for not being able to provide further details of their annual field day (see *Buzzwords* 37). The field day was on February 1, but unfortunately we don't publish a January issue. Nevertheless, we hope the field day was a big success.

The **Southern North Island** branch will be celebrating 21st birthday on February 22 with a field day at Whangaehu, just south of Wanganui city. The programme gets under way at 10 am and includes sessions on honey harvesting and extracting and a video of the Nelson disease scare. The day will finish with a visit to the Brandon's honey house at 4 pm, followed by a celebratory dinner -- a 21st party not to be missed! Enquiries can be directed to John Brandon (tel. 06-345-5350) or Sue Walker (tel. 06-357-4581).

Have you ever wondered what really goes on in a kiwifruit packhouse? Or how pruning affects pollination? What about artificial pollination -- how do all those devices really work? And is there really a market for BCP? To find more about these and other issues affecting the kiwifruit industry (which many of you are part of, after all!), why not attend the **Bay of Plenty** field day, this year scheduled for Saturday, March 21, beginning at 11 am. Venue is Kiwifruit Industries No. 1 packhouse, No. 3 Rd., Te Puke (3km from SH 2 on the right; look for the big bee sign!). There'll be an orchard wal packhouse tour, talks by leading growers, and artificial pollination demonstrations. It's your chance to ask all those "difficult questions" you've been saving up for years! And don't forget to bring the family. The branch promises a full programme for children, including swimming, pony rides, and maybe even a magician. The day will end with a BYO barbecue and a talk by B.J. Sherriff, the bee suit manufacturer from England.

MANUKA MEDIA PUSH

As Dudley Ward mentioned on page one, the first shots fired by Bill Floyd in his marketing campaign for New Zealand honey really hit the mark. And it couldn't have come at a better time. Without doubt the public had a heightened awareness of bees and beekeeping due to the media coverage of events in Nelson. And who knows, a few people in television might even have felt it was time to balance up on some of their negative reporting surrounding EFB. Whatever the case, Floyd Marketing's news release of

November 22 on the medicinal value of manuka honey really caught the public's imagination. Sales of manuka honey have been running red hot ever since. Here's the press release in its entirety:

A major breakthrough in research at Waikato University in New Zealand gives the stressed-out executive in fear of a stomach ulcer new hope.

Although clinical trials have still to be done, it appears that a tablespoon of manuka honey a day may keep that executive ulcer at bay.

It has been known for some time that the main contributing factor to stomach ulcers is the presence in the person's stomach of a bacteria known as *Helicobater pylori*.

Laboratory tests at Waikato Hospital have proven that this bacteria can be controlled and eliminated by certain New Zealand honeys.

These tests followed on from initial research done at Waikato University by a team led by Niaz Al Sonai. This research showed that some New Zealand honey, and especially manuka, had antibacterial and wound healing attributes that were far greater than previously believed.

Dr. Peter Molan, Senior Lecturer in Biochemistry at Waikato University has been responsible for the research findings and his paper on manuka honey and its antibacterial properties has been accepted for publication in the UK Journal of Pharmacy and Pharmacology.

Clinical trials on the use of manuka honey for gastritis problems are planned to start early next year.

For thousands of years honey has been acknowledged as having healing properties. Its advocates have included Hippocrates, 460-357 BC, and the Roman, Pliny the Elder, 23-79 AD. Honey is also mentioned as a medicine on Mesopotamian clay tablets which have been dated to about 2700 BC and was even listed as a medicine in the sacred scriptures of Hinduism, thought to be about 5000 years old.

Research at Waikato has shown sound scientific reasons for many of what where thought to be folk lore cures.

As part of Dr. Molan's research, he has gathered together all known medical research on honey and has found that already in many countries in the world honey is used for the treatment of burns, blisters, bed sores and major wounds.

"Honey is the perfect wound dressing," says Dr. Molan. "It not only destroys any bacteria on a wound, it provides an effective barrier to any reinfection. The honey then feeds the tissues around the wound and speeds up the healing process. It also assists wounds to knit together. A very attractive feature of using honey is that scar tissue is reduced dramatically and there is documented evidence that even major wounds and burns the size of a dinner plate have no scar remaining after honey treatment."

"Different batches of manuka honey appear to have varying degrees of antibacterial effectiveness," says Dr. Molan. "Over the next two years we will be identifying the best sources for active manuka honey that have the best antibacterial attributes."

It is clear, however," says Dr. Molan, "that manuka honeys have qualities that surpass any other honeys."

Bill Floyd, Floyd Marketing

MORE SAMPLES (PLEASE!!!)

Manuka honey is on a roll, but if our industry is really to capitalise on Dr. Molan's research, we have to make sure we supply him with plenty of research material. We reported in *Buzzwords* 34 that Dr. Molan and his team are currently investigating the variability in antibacterial activity found in different samples of manuka honey. In that issue we published a request from Dr. Molan for beekeepers to send him 10-20 g of manuka honey together with as much information as possible on where the honey was produced.

Unfortunately, that request seems to have fallen on deaf ears. Sue Jenkins, a member of the Honey Marketing and Promotion Committee, reports from Blenheim that Dr. Molan has a research student, paid for with Beekeeping Industry Trust Funds, waiting to analyze these samples. They need samples from all parts of New Zealand if they hope to get a truly representative graph of antibiotic activity. They would also appreciate samples of kanuka honey where beekeepers believe the honey is pure kanuka and not manuka.

According to Sue, beekeepers that produce manuka or kanuka honey should not under-estimate what is happening at Waikato University. She believes there will be a significant price increase in the future for manuka honey and that this will flow through to the rest of the beekeeping industry as New Zealand honey takes on a higher profile internationally.

So come on, beekeepers, get those samples pouring in. Who knows, you may even find that yours is the honey with the highest antibacterial activity (**not to mention dollar value!**) of all. The address is:

Dr. Peter Molan
Department of Biological Sciences
University of Waikato
Private Bag 3105
HAMILTON
ph (07) 856 2889

BYTES AND STINGS?

Interested in computers and their uses with beekeeping? Some beekeepers want to start a 'users group' to share information and ideas. Send your name and address to:

Nick Wallingford
55 Watling Street
Tauranga

HONEY INDUSTRY TRUST FUND

Applications for funding close on 15 August and 15 February. Forms available from the NBA, PO Box 4048, Wellington.

ALLERGY KIT RECALL

Some of you may have heard an announcement on January 13 about the recall of allergy kits. The kits in question, ANA-KIT Anaphylaxis Emergency Treatment Kits and refill syringes, are, according to the Health Department, "not as potent as they should be and may not work as well as they should." The kits are often used to treat serious allergic reactions to bee stings.

A number of beekeepers carry such kits in their trucks. As well, members of beekeepers' families are known to suffer more severe reactions to bee stings than the normal public. So if you or anybody you know has one of these kits, check the batch number with the list below, and if it matches, take the kit to your nearest chemist for a replacement. The products and batch numbers being recalled are:

ANA-KIT Anaphylaxis Emergency Treatment Kit: AK274, AK274D, AK275, AK275A, AK275H, AK276, AK276B, AK276C, AK276K, AK277, AK277G, AK279, AK279A.

Ana-Guard Epinephrine Injection USP (1:10 000) G00017 through G00073.
Epinephrine Injection USP (1:1000) S218 through S223.

Christchurch Press, January 13, 1992

GUARDS VS. SOLDIERS

With all the research being conducted in the United States on Africanised bees, it was inevitable that someone would look a bit more closely at the subject of guard bees. We all know that in every colony there exists a small group of bees that stay at the colony entrance, behaving in a way that is different than for the other bees. Their antennae are outstretched and their forelegs are raised off the ground. Their wings are usually held away from their bodies. They rush up and examine foraging bees as they arrive at the colony entrance.

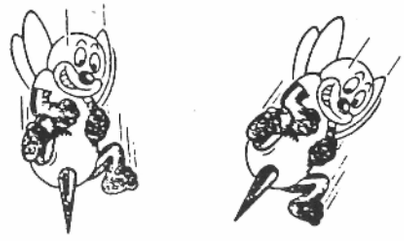
These are the guard bees, and in 1987, Moore and his colleagues made a comprehensive study of them. They established that worker bees became guards when they were between 7 and 22 days old. Interestingly, however, most bees guarded for less than a day, although some continued for as long as 6 days. The other interesting finding was the small number guard bees present at any one time, generally averaging about 75.

Since the purpose of guard bees is to discourage outside bees, other insects, and small animals from entering the colony, it's obvious that the hundreds of bees that might attack an intruder such as a bear or a human must come from another group in the hive. I always assumed these bees were simply recruited from the ranks of idle foragers, but a study in 1991 by Breed, Robinson, and Page has showed that this isn't quite so. By using behavioral and genetic techniques, they determined that there is a large number of bees (perhaps thousands in a large colony) that are really always ready to attack. The researchers call these bees "soldiers" to differentiate them from guards.

They were also able to show that guards and soldiers are members of different subfamilies (that is, they have different fathers). And most interestingly, they believe these bees are not foragers, although they are usually of the same age. Their wings show less wear, indicating that they fly much less.

According to the researchers, "the identification of soldiers as a distinct group of workers may help solve one of the major mysteries of honey bee division of labour, the 'lazy' bee phenomenon." It was noted a number of years ago that there are usually a number of bees in a hive that appear to be doing nothing. In fact, these bees may be soldiers that make up a reserve that can be called on immediately whenever they are needed.

Gleanings in Bee Culture, April 1991



ASIAN OPPORTUNITY

In *Buzzwords* 34 we mentioned that the Korean government recently released its latest liberalisation package for agricultural products, including for the first time pollen and honey. Now comes news that bee product exporters can take advantage of an important trade exhibition in Korea. The exhibition is called Seoul Food '92 (*nice pun! - Ed.*), and takes place April 13-17. The exhibit will include food, beverages, additives, raw materials, processing equipment, packaging materials, and equipment and machinery for restaurants and hotels. For details contact: Korea Trade Centre, Box 4007, Auckland 1, ph (09) 735 793.

BUZZWORDS IS ...

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